REMARKS

The final Office Action mailed March 14, 2006, has been received and reviewed.

Claims 1-9 and 11-20 are currently pending and under consideration in the above-referenced application, each standing rejected.

Reconsideration of the above-referenced application is respectfully requested.

Supplemental Information Disclosure Statement

Please note that a Supplemental Information Disclosure Statement was filed in the above-referenced application on April 18, 2005, but that the undersigned attorney has not yet received any indication that the references cited in the Supplemental Information Disclosure Statement have been considered in the above-referenced application. It is respectfully requested that the references cited in the Supplemental Information Disclosure Statement of April 18, 2005, be considered and made of record in the above-referenced application and that an initialed copy of the Form PTO/SB/08A that accompanied that Supplemental Information Disclosure Statement be returned to the undersigned attorney as evidence of such consideration.

Rejections under 35 U.S.C. § 103(a)

Claims 1-9 and 11-20 stand rejected under 35 U.S.C. § 103(a).

The standard for establishing and maintaining a rejection under 35 U.S.C. § 103(a) is set forth in M.P.E.P. § 706.02(j), which provides:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Umbaugh

Claims 1-9 and 14-17 are rejected under 35 U.S.C. § 103(a) for reciting subject matter which is assertedly unpatentable over the subject matter taught in U.S. Patent 3,855,693 to Umbaugh (hereinafter "Umbaugh").

It is respectfully submitted that there are several reasons why Umbaugh does not support a *prima facie* case of obviousness against any of claims 1-9 and 14-17.

First, it is respectfully submitted that Umbaugh does not teach or suggest each and every element of any of claims 1-9 or 14-17.

Umbaugh teaches an assembly process by which cantilevered leads 20 that comprise ferromagnetic material are magnetically drawn toward corresponding terminals 14 of a substrate while the leads are bonded or otherwise permanently secured to their corresponding terminals. Col. 2, lines 58-68. FIGs. 2 and 3 of Umbaugh illustrated the process of securing cantilevered magnetic leads 20 to their corresponding terminals 14. Umbaugh teaches that, in this process, "[t]he end 30 of [a] cantilevered lead 20 may be coated with flux 37 to promote an outer-lead bond by solder [36] reflow." Col. 4, lines 63-66. The cantilevered magnetic leads 20 are magnetically drawn to their corresponding terminals 14. *See* col. 7, lines 40-54; col. 4, line 44, to col. 5, line 6. When the leads 20 are sufficiently close to their corresponding terminals 14, the leads 20 may be permanently secured and electrically connected to their corresponding terminals 14 with solder. *See, id.*

Umbaugh lacks any teaching or suggestion that the magnetism of the leads 20 is useful for anything other than bringing the leads 20 in proximity to their corresponding terminals 14 so that solder 36 may be positioned between the leads 20 and terminals 14 to establish permanent electrical connections therebetween.

While it has been asserted that "Umbaugh discloses in FIG. 4 a plurality of chips making connections and they are all inherently and obviously require power and ground, as well as a constant amount of current" (Final Office Action, page 2), it is respectfully submitted that FIG. 4 does not show electrical connection between leads 20 and terminals 14. Rather, FIG. 4 quite clearly shows leads 20 that have not yet been drawn toward or soldered to terminals 14. This observation is supported by Umbaugh's statement that the leads 20, "are separated from the

surface 27" of a carrier substrate 12. Col. 5, line 12. Thus, the leads 20 are also separated from their corresponding terminals 14. Without contacting one another, or without a conductive element therebetween, as is the case in FIG. 4, it is not understood how leads 20 could electrically communicate with their corresponding terminals 14.

The description of FIG. 4 relates merely to the manner in which a semiconductor chip 12 and carrier substrate 12 are assembled with one another, as well as to the materials from which various features are formed. *See, e.g.,* col. 5, lines 7-45.

Again, it is submitted that Umbaugh is completely devoid of any teaching or suggestion that the magnetism of leads 20 could be used to establish and at least temporarily maintain an electrical contact between leads 20 and terminals 14, as would be required for Umbaugh to teach or suggest each and every element of independent claim 1 and independent claim 8.

Each of claims 2-7 is allowable, among other reasons, for depending directly or indirectly from claim 1, which is allowable.

Claims 9 and 14-17 are each allowable, among other reasons, for depending directly or indirectly from claim 8, which is allowable.

Second, it is respectfully submitted that, without the benefit of hindsight that the above-referenced application has provided to the Examiner, one of ordinary skill in the art wouldn't have been motivated to modify teachings from Umbaugh in the manner that has been asserted. Specifically, because Umbaugh teaches that the use of solder 36 is necessary to establish and maintain electrical connections between leads 20 and terminals 14, it is respectfully submitted that one of ordinary skill in the art wouldn't have been motivated to modify the teachings of Umbaugh in such a way as to rely completely upon magnetic attraction between leads 20 and terminals 14 to establish and maintain electrical contacts therebetween.

Third, it is respectfully submitted that one of ordinary skill in the art wouldn't have had any reason to expect that the asserted modification of the teachings from Umbaugh would be successful. This is because the teachings of Umbaugh relate entirely to processes for permanently assembling semiconductor device components to one another, not to methods for

establishing temporary communication between an electrical connector and a contact in communication with at least one semiconductor device, as recited in independent claims 1 and 8.

It is respectfully submitted that a *prima facie* case of obviousness has not been established against any of claims 1-9 or 14-17. Therefore, under 35 U.S.C. § 103(a), the subject matter recited in claims 1-9 and 14-17 is allowable over the subject matter taught in Umbaugh.

Umbaugh in View of Butherus

Claims 11-13 have been rejected under 35 U.S.C. § 103(a) for being drawn to subject matter that is allegedly not patentable over the subject matter taught in Umbaugh, in view of teachings from U.S. Patent 3,612,955 to Butherus et al. (hereinafter "Butherus").

The teachings of Butherus relate to the use of magnetism during assembly to align leads with corresponding terminals on the carrier substrate. Col. 1, lines 6-31. The leads are then permanently bonded (*e.g.*, with solder) to the terminals to establish and maintain electrical contact therebetween. Col. 2, lines 71-75.

Like Umbaugh, Butherus lacks any teaching or suggestion that magnetic attraction between leads and contacts may be used to establish or at least temporarily maintain electrical contact. Further, Umbaugh and Butherus both lack any teaching or suggestion that such electrical contact may be magnetically established during a stress testing process.

Moreover, Butherus does not remedy the aforementioned deficiencies of Umbaugh, including provision of the missing motivation to modify teachings from Umbaugh in such a way as to come up with the invention recited in independent claim 8, from which claims 11-13 depend, or provide one or ordinary skill in the art with any reason to expect that the teachings of Umbaugh and Butherus could be combined in such a way as to render obvious each and every element of any of claims 11-13.

Additionally, each of claims 11-13 is allowable, among other reasons, for depending directly or indirectly from claim 8, which is allowable.

As such, teachings from Umbaugh and Butherus do not support a *prima facie* case of obviousness against any of claims 11-13.

Umbaugh in View of Official Notice

Claims 18-20 are rejected under 35 U.S.C. § 103(a) for reciting subject matter which is assertedly unpatentable over teachings from Umbaugh, in view of teachings of which the Office purports it can take "official notice."

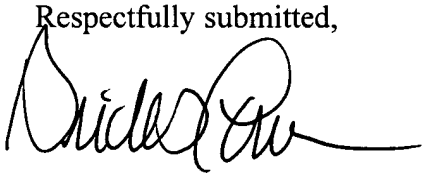
Claims 18-20 are allowable, among other reasons, for depending from claim 8 which is allowable.

Withdrawal of the 35 U.S.C. § 103(a) rejections of claims 1-9 and 11-20 is respectfully requested.

CONCLUSION

It is respectfully submitted that each of claims 1-9 and 11-20 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,



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